

What is claimed is:

1. A method of performing magnetic resonance imaging (MRI) comprising: receiving information from an implantable medical device (IMD); and performing the MRI based on the information.
2. The method of claim 1, wherein the information includes sensed conditions measured by the IMD.
3. The method of claim 2, further comprising sensing conditions of a patient with the IMD.
4. The method of claim 1, wherein the information defines a timing of stimulation pulses applied to a patient by the IMD.
5. The method of claim 1, further comprising stimulating a patient with the IMD, wherein the received information defines a timing of the stimulation applied to the patient by the IMD.
6. The method of claim 5, further comprising stimulating the patient with the IMD to induce an arrhythmia during the MRI.
7. The method of claim 1, wherein the IMD is a pacemaker and wherein the information defines a timing of a cardiac cycle.
8. The method of claim 1, wherein performing the MRI includes applying one or more electromagnetic radiation bursts based on the information.
9. The method of claim 1, wherein performing the MRI includes applying one or more gradient magnetic fields based on the information.

10. A method of performing magnetic resonance imaging (MRI) comprising:
stimulating a patient with an implantable medical device (IMD);
communicating information indicative of a timing of the stimulation; and
performing the MRI based on the information.
11. The method of claim 10, further comprising:
sensing conditions of the patient with the IMD;
communicating information indicative of the sensed conditions; and
performing the MRI based on the information indicative of a timing of
the stimulation and the information indicative of the sensed conditions.
12. The method of claim 10, wherein the information is communicated from
the IMD.
13. The method of claim 10, wherein the information is communicated to
the IMD.
14. A method of performing magnetic resonance imaging (MRI) comprising:
sending information to an implantable medical device (IMD) to define
operation of the IMD during MRI; and
performing the MRI in coordination with operation of the IMD.
15. The method of claim 14, wherein the information defines a timing for
application of stimulation pulses by the IMD.
16. A magnetic resonance imaging (MRI) device comprising:
a magnet to generate a magnetic field;
an electromagnetic radiation source to apply electromagnetic radiation
bursts;

an imaging unit to generate images of patient following application of radiation bursts;

a receiver to receive information from an implantable medical device (IMD); and

a control unit to coordinate application of the electromagnetic radiation bursts based on the information.

17. The MRI device of claim 16, wherein the received information includes an indication of sensed conditions measured by the IMD.

18. The MRI device of claim 17, wherein the received information includes an indication of one or more stimulations applied by the IMD.

19. A medical device comprising:

a control unit to coordinate application of magnetic resonance imaging (MRI) electromagnetic radiation bursts with operation of an implantable medical device (IMD); and

a transmitter to transmit information to the IMD to cause the IMD to operate in coordination with an MRI device.

20. The medical device of claim 19, wherein the medical device comprises a programmer for the IMD.

21. The medical device of claim 19, wherein the medical device comprises the MRI device.

22. A system comprising:

a magnetic resonance imaging (MRI) device to image a patient using electromagnetic radiation bursts; and

an implantable medical device (IMD), wherein application of the electromagnetic radiation bursts by the MRI device is coordinated with operation of the IMD.

23. The system of claim 22, further comprising a programmer to coordinate operation of the IMD with the MRI device.

24. The system of claim 22, wherein the implantable medical device senses conditions of the patient and transmits information to the MRI device indicative of the sensed conditions, and wherein the MRI device applies the electromagnetic radiation bursts based on the information.

25. The system of claim 22, wherein the implantable medical device stimulates the patient and transmits information to the MRI device indicative of the stimulation, and wherein the MRI device applies the electromagnetic radiation bursts based on the information.

26. An apparatus comprising:
means for receiving information from an implantable medical device (IMD); and
means for performing magnetic resonance imaging (MRI) based on the information.